

## AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116 - EXPEDITED PROCEDURE

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Serial Number: 09/992,979

Dkt: 2962.001US1

Filing Date: November 6, 2001

Title: METHOD AND APPARATUS FOR PROVIDING COMPREHENSIVE SEARCH RESULTS IN RESPONSE TO USER  
QUERIES ENTERED OVER A COMPUTER NETWORKIN THE CLAIMS

Please amend the claims as follows.

1. (Currently Amended) A computer-implemented method for providing a user with search results in response to queries entered by the user, comprising:
  - a) providing a plurality of electronic files containing information and a metadata database comprising identifying data for selectively accessing the electronic files;
  - b) prompting a user to enter a query;
  - c) identifying key terms contained in the query;
  - d) creating an expanded query to include additional terms related to the key terms in the query, with the additional terms including at least one term that is not synonymous with any identified key term, wherein the query is expanded to include a biological sequence of at least one term contained in the query and wherein creating the expanded query comprises:  
providing a vocabulary bridge having electronic files including groups of terms for expanding a query entered by the user;  
comparing key terms entered by the user as part of the query to the electronic files; and  
adding to the query all terms in at least one group that contains at least one of the key terms to provide an expanded query containing both entered terms and unentered terms;
  - e) identifying information that includes at least one of the terms in the expanded query;
  - f) prompting the user to select at least one item of information identified as including at least one of the terms in the expanded query; and
  - g) accessing an electronic file that contains the information selected by the user.
2. (Canceled)

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3. (Currently Amended) The method of ~~claim 2~~claim 1 wherein the electronic files include dictionaries, thesauri, and authority files.
4. (Currently Amended) The method of ~~claim 2~~claim 1 wherein all of the terms contained within each individual group of terms are pre-determined to be related to each other.
5. (Canceled)
6. (Original) The method of claim 1 wherein the query is expanded to include an identifier identifying a biological sequence of at least one term contained in the query.
7. (Original) The method of claim 1 wherein the query is expanded to include at least one linguistic translation of at least one term contained in the query.
8. (Original) The method of claim 1 wherein the query is expanded to include at least one term associated with at least one term contained in the query.
9. (Original) The method of claim 1 wherein the plurality of electronic files are all related to a preselected subject.
10. (Original) The method of claim 9 wherein the preselected subject is biology.
11. (Previously Presented) The method of claim 1 comprising assigning identifying information to the user to enable the user to subsequently access and manipulate the query and the selected information.
12. (Previously Presented) The method of claim 1 comprising displaying to the user a synopsis of information identified as including at least one of the terms in the expanded query.

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13. (Currently Amended) A method of enabling a user using a computer network to obtain search results, comprising:
- a) accessing a computer network associated with a plurality of electronic files containing information and a metadata database comprising identifying data for selectively accessing the electronic files;
  - b) identifying key terms contained in a query entered by a user over the computer network;
  - c) creating an expanded query to include additional terms associated with the key terms, with the additional terms including at least one term that is not synonymous with any identified key term and an identifier identifying a biological sequence of at least one term contained in the query, and wherein creating the expanded query comprises:  
providing a vocabulary bridge having electronic files including groups of  
terms for expanding a query entered by the user;  
comparing key terms entered by the user as part of the query to the  
electronic files; and  
adding to the query all terms in at least one group that contains at least  
one of the key terms to provide an expanded query containing both  
entered terms and unentered terms;
  - d) identifying information identified by at least one of the terms in the expanded query;
  - e) enabling the user to select at least one item of information identified by at least one of the terms in the expanded query; and
  - f) accessing an electronic file that contains the information selected by the user.
14. (Original) The method of claim 13 wherein the plurality of electronic files include audio elements capable of being transmitted over a computer network.
15. (Original) The method of claim 13 wherein the plurality of electronic files include video elements capable of being transmitted over a computer network.

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16. (Canceled)
17. (Currently Amended) The method of ~~claim 16~~ claim 13 wherein the electronic files include dictionaries, thesauri, and authority files.
18. (Currently Amended) The method of ~~claim 16~~ claim 13 wherein all of the terms contained within each individual group of terms are pre-determined to be related to each other.
19. (Original) The method of claim 13 wherein the query is expanded to include a biological sequence of at least one term contained in the query.
20. (Canceled)
21. (Original) The method of claim 13 wherein the query is expanded to include at least one linguistic translation of at least one term contained in the query.
22. (Original) The method of claim 13 wherein the query is expanded to include at least one term that has been pre-determined to be related to at least one term contained in the query.
23. (Original) The method of claim 13 wherein the plurality of electronic files are all related to a preselected subject.
24. (Original) The method of claim 23 wherein the preselected subject is biology.
25. (Previously Presented) The method of claim 13 comprising assigning identifying information to the user to enable the user to subsequently access and manipulate the query and the selected information.

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26. (Previously Presented) The method of claim 13 comprising displaying to the user a synopsis of information identified by at least one of the terms in the expanded query.
27. (Currently Amended) A computer system for providing users with search results in response to a query entered by the user, comprising:
- a) an electronically accessible computer network including at least one server for providing access to information available through the computer network; and
  - b) the computer network being associated with
    - a plurality of electronic files containing information;
    - a metadata database for accessing the electronic files; and
- a vocabulary bridge for expanding a query entered by a user to define an expanded query, with the query including one or more user-entered key terms and the expanded query including at least one non-user-entered term that is not synonymous with any of the user-entered key terms and an identifier identifying a biological sequence of at least one term contained in the query, and wherein the vocabulary bridge comprises:
- electronic files that include groups of terms for expanding a query entered by a user;
  - means for comparing key terms entered by the user as part of the query to the electronic files; and
  - means for adding to the query all terms in at least one group that contains at least one of the key terms to provide an expanded query containing both entered terms and unentered terms.
28. (Canceled)
29. (Currently Amended) A system as in ~~claim 28~~ claim 27 wherein the electronic files include dictionaries, thesauri, and authority files.

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30. (Original) A system as in claim 29 wherein the authority files include groups of related terms for expanding a query entered by a user to include unentered terms relevant to entered terms.
31. (Currently Amended) A system as in ~~claim 28~~ claim 27 wherein all of the terms contained within each individual group of terms are pre-determined to be related to each other.
32. (Original) A system as in claim 27 wherein the computer network is accessed using a personal computer.
33. (Previously Presented) The method of claim 1, wherein the expanded query includes one or more first non-user-input terms based on one or more of the key terms and one or more second non-user-input terms based on one or more of the first non-user-input terms.
34. (Previously Presented) The method of claim 1, wherein the expanded query includes one or more first non-user-input terms based on one or more of the key terms, with one or more of the first non-user-input terms having a subject-matter-relationship with at least one of the key terms.
35. (Previously Presented) The method of claim 1, wherein identifying information that includes at least one of the terms in the expanded query includes:  
presenting search results identifying a plurality of files having a plurality of file types;  
wherein presenting the search results includes displaying at least a portion of the results  
within a graphical user interface having a plurality of user-selectable controls,  
with each control associated with a corresponding different file type and  
selectable to restrict display to a portion of the results having the corresponding  
different file type.

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36. (Currently Amended) The method of ~~claim 2~~ claim 1, wherein all terms in the one group are related to a predetermined subject matter.
37. (Canceled)
38. (Previously Presented) The system as in claim 27, wherein the vocabulary bridge expands the query to include one or more first non-user-input terms based on one or more of the key terms and one or more second non-user-input terms based on one or more of the first non-user-input terms.
- 39-40. (Canceled)
41. (Currently Amended) The method of ~~claim 39 wherein the one non-user input term is:~~ claim 1, wherein at least one of the additional terms is:  
a misspelled version of one of the user-input terms;  
a linguistic variation of one of the user-input terms; or  
related by subject matter classification to at least one of the ~~user input terms~~ key terms.
42. (Currently Amended) The method of ~~claim 39 wherein the one non-user input term and at least one key user input term~~ claim 1, wherein at least one of the additional terms and at least one of the key terms have a causal semantic relationship.
43. (Currently Amended) The method of claim 42, wherein ~~the one non-user input term at least one of the additional terms~~ identifies a first biological condition caused by a second biological condition identified by the one of the user input terms by at least one of the key terms.
44. (Currently Amended) The method of claim 42, wherein ~~the one of the first non-user input terms at least one of the additional terms~~ identifies at least one cause of an effect identified by the one of the user input terms by at least one of the key terms.

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45. (Currently Amended) The method of ~~claim 39, wherein presenting the search results~~  
claim 1, wherein prompting the user to select at least one of item of information that  
includes one of the terms in the expanded query, includes presenting information  
regarding similarity or differences regarding information in a file including one of the  
user input key terms and information in a file including the one non-user input term, at  
least one of the additional terms.
46. (Currently Amended) The method of ~~claim 39; claim 1:~~  
wherein the search results include a plurality of file types; identifying information that  
includes at least one of the terms in the expanded query includes identifying a  
plurality of files having a plurality of different file types; and  
wherein presenting the search results includes prompting the user to select at least one of  
item of information that includes one of the terms in the expanded query, includes  
displaying at least a portion of the ~~results in with~~ identified information in a  
graphical user interface having a plurality of user-selectable controls, with each  
control associated with a corresponding one of the different file types ~~different~~  
~~file type~~ and selectable to restrict display to a portion of the ~~results~~ identified  
information having the corresponding one of the different file type types.
47. (Currently Amended) The method of claim 46, wherein the plurality of file types includes  
a map type or a genomics type, and the plurality of user-selectable controls includes a  
control for restricting display ~~of results~~ to files of the map type and a control for  
restricting display ~~of results~~ to files of the genomics type.
48. (Currently Amended) The method of claim 46, wherein the plurality of file types includes  
a genomics type and a non-genomics type, and the plurality of user-selectable controls  
includes a control for restricting display ~~of results~~ to files of the genomics type.



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49. (Currently Amended) ~~A method comprising:~~ The method of claim 1, wherein creating the expanded query to include additional terms related to the key terms, includes: identifying one or more first terms based on one or more of the key terms; and subsequently and automatically identifying one or more second terms based on one or more of the first terms.  
~~defining a query based on one or more user input key terms and one or more first non-user input terms, with the non-user input terms including at least one term that is not synonymous with any user input key term; and~~  
~~further defining the query to include one or more second non-user input terms, with one or more of the second non-user input terms based on one or more of the first non-user input terms.~~
50. (Currently Amended) ~~The method of claim 49, wherein defining a query based on one or more user input key terms and one or more first non-user input terms, comprises receiving user input terms and identifying key user input terms by~~ wherein creating the expanded query to include additional terms related to the key terms, further includes eliminating extraneous terms and punctuation from the user input terms. the entered query.
51. (Currently Amended) ~~The method of claim 49, wherein each of the first non-user input terms has a subject-matter-relationship with at least one of the key user input terms.~~
52. (Currently Amended) ~~The method of claim 49, further comprising:~~ claim 13:  
wherein identifying information identified by at least one of the terms in the expanded query, includes presenting search results identifying a plurality of files having a plurality of file types; and  
wherein enabling the user to select at least one item of information identified by at least one of the terms in the expanded query, includes displaying presenting the search results includes displaying at least a portion of the results within a graphical user interface having a plurality of user-selectable controls, with each control

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associated with a corresponding different file type and selectable to restrict display to a portion of the results identified files having the corresponding different file type.

53-55. (Canceled)

56. (Currently Amended) The method of ~~claim 53~~ claim 13, wherein ~~the one or more first non-user input terms include~~ the additional terms include :  
at least one term that is a misspelled version of one of the ~~user input terms~~ key terms;  
at least one term that is a linguistic variation of one of the ~~user input terms~~; and key terms; or  
at least one term that is related by subject matter classification of one of the ~~user input terms~~ key terms.
57. (Currently Amended) The method of ~~claim 53~~ claim 13, wherein at least one of the ~~first non-user input~~ additional terms and at least one of the ~~user input~~ key terms have a causal semantic relationship.
58. (Currently Amended) The method of ~~claim 53~~ claim 13, wherein the one of the ~~first non-user input~~ additional terms identifies a first biological condition caused by a second biological condition identified by ~~the one of the user input~~ at least one of the key terms.
59. (Currently Amended) The method of ~~claim 53~~ claim 13, wherein the one of the ~~first non-user input~~ additional terms identifies at least one cause of an effect identified by ~~the one of the user input~~ at least one of the key terms.
60. (Currently Amended) A system as in claim 27, wherein ~~the server is configured to at least partially define a graphical user interface on an access device associated with the user. the interface for an online search system~~, comprising: a plurality of user-selectable controls, including at least one control for submitting a ~~query~~ the query and a plurality of

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result controls for controlling display of search results associated with the query, determined for the expanded query, with each result control associated with a corresponding different file type and selectable to restrict display of search results to its corresponding different file type.

61. (Currently Amended) The ~~graphical user interface system~~ of claim 60, wherein the ~~plurality of file types that includes a map type or a genomics type, and the plurality of result controls includes a control for restricting display of results to files of the map type~~ a map type and a control for restricting display of results to files of the genomics type a genomics type.
62. (Previously Presented) The ~~graphical user interface system~~ of claim 60, wherein the plurality of file types includes a genomics type and a non-genomics type, and the plurality of user-selectable controls includes a control for restricting display of results to files of the genomics type.
63. (Currently Amended) The ~~graphical user interface system~~ of claim 60, wherein the ~~plurality of file types includes a map type, a multimedia type, a genomic type, and a journal type; and the plurality of result controls includes a control~~ respective controls for restricting display of results to files of the map type, a multimedia type, a genomic type, and a journal type. a map type, a multimedia type, a genomic type, and a journal type.
- 64-66. (Canceled)

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